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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,513	09/20/2005	Fiorenzo Draghetti	2545-0483	1907
23486 7590 08/18/2009 SHUTTLEWORTH & INGERSOLL, P.L.C. 115 3RD STREET SE, SUITE 500 P.O. BOX 2107 CEDAR RAPIDS, IA 52406				
EXAMINER HOOVER, MATTHEW				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
08/18/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/549,513

**Applicant(s)**

DRAGHETTI ET AL.

**Examiner**

MATTHEW HOOVER

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The Amendment filed 6/11/09 has been entered. Claims 1-3 and 5-18 remain pending in the application. The previous 35 USC 112 rejections of claims 1-16 are withdrawn in light of Applicants amendments to claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 and 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyett (US 4580939).

Regarding claim 1, Dyett teaches a unit for feeding filters into a machine with feed means (figure 1 #12, 12A, 12B, 12C, 24, 26), by which the filters are fed (column 1 lines 38-40). The machine consists of a feed channel (figure 1 #18) along which the filters are advanced (column 1 lines 38-49). The feed means is connect to an outlet end

of the channel (figure 2 #34A), which is connected to a dispensing hopper (figure 1 #34) and from which are released by a fluted drum (figure 1 #10). It also teaches a volume storage buffer, which can be seen in the space define by the right side wall of the space (28), the conveyor (20) and the wall which the potentiometer is located (56). The volume space extends above and parallels the feed channel (18) and its bottom wall extends transversely to the right wall of the space. The bottom wall (20) is also the upper side of the feed channel, which is delimited on both under side by a conveyor (16, 20).

Dyett does not teach that the volume storage buffer is of variable size or that a moveable wall is present in the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention to make right wall of the space adjustable. The motivation being so one could adjust the volume of the container to be able to handle multiple size loads. See *In re Stevens*, 212 F.2d 197, 101 USPQ 284 (CCPA 1954). By making the wall adjustable, the storage buffer would have become a variable volume storage buffer and would vary the volume of the space (28) and the variable volume storage buffer. It is inherent that the movement for the wall would be done by a moving mechanism.

Regarding claim 2, the teachings of Dyett are disclosed above. Dyett also teaches that filters are introduced through the receiver unit (figure 1 #12) down a channel (figure 1 #12B) and down a conveyor belt (figure 1 #12C) (column 1 lines 50-59). The conveyor belt has transverse ribs on it that allow the filters to be dispersed into the space in axial or transversal directions (column 2 lines 16-23). A control means

monitors the level of filters in the space. A light source (figure 1 #32 and 30) shines a beam of light through an aperture (figure 1 #14A and 14B) in the tray (figure 1 #14). When the level of filters breaks this beam the feeding unit stops the delivery of filters into the space (column 1 lines 60-68 and column 2 lines 1-6).

Dyett does not teach that the moving mechanism is interlocked with the monitoring and control means.

It would have been obvious for the moving mechanism and monitoring means to be interlocked. Dyett has a means for monitoring and controlling the level of rods in the space, and therefore, a means of monitoring and controlling the amount of free space within the space (28). By making the wall adjustable, this amount of free space can be changed. Therefore it would be obvious for the monitoring mechanism to monitor the levels and communicate with the moving mechanism when the amount of free space is not ideal in order for it to move the adjustable wall, creating more space.

Regarding claim 3, Dyett discloses the variable volume associated with the receiving space and moving means in the rejection of claims 1 and 2 above. It also teaches that the walls of the variable space are defined by the three walls of the tray (14) and the top layer of the filters. Only the bottom wall of the filter changes while the other three remain fixed.

Regarding claim 5, figure 1 shows the variable volume space is of an elongated shape, extending above and parallel to the feed channel along which filters advance. It is limited on the underside by the level of the filters and extends to side wall.

Regarding claim 6, the bottom layer of filters rests against the side wall and can consist of a conveyor belt (figure 1 #16) controlled by a motor (figure 1 #22).

Regarding claims 7 and 12, the filters are advanced down a conveyor belt (figure 1 #16), that are controlled by pulleys (figure 2 #38 and 36), through a feed channel (18) with transverse ribs to the space (34). There is a sensor plate (figure 2 #50) located in this space (34). The sensor plate defines the space of the reservoir (figure 2 #34). The sensor plate is connected to a block (figure 2 #52) which is attached to a spindle (figure 2 #54). The spindle is then connected to a rotary potentiometer (figure 2 #56). The sensor plate detects the level of filters in the reservoir and determines the angular position of the spindle. The position of the spindle determines the variable output controlling the motor (figure 1 #22). The motor controls the speed of the conveyor belts (figure 1 #20, 16).

Regarding claims 8 and 13, a dispensing space (figure 2 #34A) comprises means to control the level of filters. There is a sensor plate (figure 2 #50) located in this space (34). The sensor plate defines the space of the reservoir (figure 2 #34). The sensor plate is connected to a block (figure 2 #52) which is attached to a spindle (figure

2 #54). The spindle is then connected to a rotary potentiometer (figure 2 #56). The sensor plate detects the level of filters in the reservoir and determines the angular position of the spindle. The position of the spindle determines the variable output controlling the motor (figure 1 #22). The motor controls the speed of the conveyor belts (figure 1 #20, 16). The speed of the conveyor belts controls the volume of filters in the space (34 and 28) (column 2 lines 49-65).

Regarding claims 9 and 14, the teachings of Dyett are disclosed above in the rejection of claim 1.

Regarding claims 10-11, the filters are directed in different directions upon entering the space (28) by the reasoning discussed in the rejection for claim 2 discussed above.

Regarding claims 15-16, the filters are directed in different directions upon entering the space (28) as discussed in the rejection of claims 1 and 2 above.

Regarding claims 17 and 18, the teachings of Dyett are disclosed above in the rejection of claims 1 and 2.

***Response to Arguments***

Applicant's arguments filed 5/4/09 have been fully considered but they are not persuasive.

Regarding claim 1, applicant argues on page 8-9 in the Remarks that Dyett fails to disclose a variable volume storage buffer or a moveable wall, which would vary the volume the container.

In response to applicant's argument, it is noted that Dyett discloses a fixed storage buffer (space defined by the right most wall of space (28), conveyor (20) and wall that houses the potentiometer (56)) and a fixed wall (right most wall of the space (28)). Making the fixed wall adjustable is an engineering choice and is not patentable. See *In re Stevens*, 212 F.2d 197, 101 USPQ 284 (CCPA 1954). Making the wall adjustable would cause the fixed storage buffer to become variable as well, varying the volume of the container.

Regarding claim 1, applicant also argues on page 9 in the Remarks that Dyett fails to disclose ore suggest that the variable volume storage buffer extends above and parallel to the feed channel and is delimited on an underside by a bottom wall extending transversely to the moveable wall, the bottom wall also delimiting an upper side of the feed channel, the feed channel delimited on an under side by a conveyor belt.

In response to the applicant's argument, it is noted that Dyett discloses a storage buffer space, which is defined by the right most wall of space (28), conveyor (20) and wall that houses the potentiometer (56). The buffer is located above and parallel the feed channel (18) and has a bottom wall (20) that extends transversely from the right most wall of the space (28) which is the now moveable wall (disclosed above). This



bottom wall (20) is also the upper wall of the feed channel (18), which is delimited on it's underside by a conveyor (16).

Regarding claim 17, applicants argues that Dyett fails to teach a mechanism for moving the movable wall, interlocked to a mechanism for monitoring and controlling, for varying the volume in the variable volume buffer.

In response to applicant's argument, Dyett teaches that a control means monitors the level of filters in the space. A light source (figure 1 #32 and 30) shines a beam of light through an aperture (figure 1 #14A and 14B) in the tray (figure 1 #14). When the level of filters breaks this beam the feeding unit stops the delivery of filters into the space (column 1 lines 60-68 and column 2 lines 1-6). Since it has been established that it would have been obvious to make the fixed wall adjustable, it is inherent there is a mechanism to perform this moving process. The control means monitors the amount of free space in the space area (28) and the moving mechanism controls the amount of free space. Therefore it would have been obvious to have these two devices in communication with each other to maximize efficiency of the device.

Regarding claim 18, applicant argues that Dyett fails to disclose that the variable volume buffer presents two side walls disposed mutually parallel and substantially perpendicular to the bottom wall, and is equipped with a mechanism by which to vary the distance between the side walls, so as to allow of changing the transverse dimension of the variable volume buffer to accommodate different lengths of filters.

In response to applicant's arguments, Dyett teaches that the variable volume buffer has two side walls (right most wall of the space (28) and the wall in which the potentiometer is located (56)). These two walls are parallel to each other and both perpendicular to the bottom wall (20). By making the side wall adjustable (discussed above in claim 1), the distance between the two walls can vary. This moving of the wall would cause the dimension of the variable volume buffer to change, changing the volume of the space (28) as well.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW HOOVER whose telephone number is (571)270-7663. The examiner can normally be reached on Mon-Thurs 7am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MH/  
Examiner AU1791

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